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THESIS

**FOREIGN MILITARY SALES: CONTRACTING
INTEGRATED LOGISTICS SUPPORT FOR OUT-
OF-INVENTORY EQUIPMENT**

by

Leslie H. Alexander

December, 1994

Principal Advisor:

Mark Stone

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SUPPORT FOR OUT-OF-INVENTORY EQUIPMENT

by

Leslie H. Alexander
Lieutenant, United States Navy
B.A., University of Pittsburgh, 1983

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Author: Leslie H. Alexander
Leslie H. Alexander

Approved by: Mark W. Stone
Mark Stone, Principal Advisor

Rebecca Adams
Rebecca Adams, Associate Advisor

David R. Whipple, Chairman
Department of Systems Management

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ABSTRACT

The Naval Air Systems Command (NAVAIR) created a new requirement for the contracting of Integrated Logistics Support of obsolete weapon systems for foreign military sales. Obsolete weapon systems are weapon systems with useful service life scheduled for decommissioning, disposal, or potential foreign military sales transactions. The omnibus contract is defined as a total package approach contract used to deliver integrated logistics support to the foreign military sales customer. The SH2 helicopter is the first platform to attempt the use of an all inclusive omnibus type contract for foreign military sales. This thesis identifies the needs of the foreign military sales customer and relates those needs to the services an omnibus contract can provide. The omnibus contract must recognize the concerns the foreign military sales customer has with commercially contracting integrated logistics support. The strengths and weaknesses of the omnibus contract are contrasted with using separate contracts for each integrated logistics support area. Conclusions are developed to prepare NAVAIR for the interdependency required for an omnibus contract. The thesis recommends that an effective omnibus contact requires a partnering relationship between the contractor, foreign military sales customer and the United States Navy.

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I. INTRODUCTION

A. GENERAL

An objective of The Navy's Foreign Military Sales (FMS) program is to improve the competitive position of the Navy's international FMS market.

Force reductions, base closures, program cancellations and personnel cuts are clearly in the Navy's future. The reduction in fiscal resources will directly impact the Navy's weapon system industrial/production base as the nation continues to lose interest in major weapon systems development production and acquisition. [Ref. 1, p. 3]

Foreign military sales have traditionally assisted the defense industrial base. FMS is the only expanding program in the Navy with sales expected to be over 30 billion dollars for fiscal year 1994. [Ref. 2] These sales translate into over 280,000 in jobs. Congressional Budget Office reviews have shown the vast impact of FMS on the US economy. "These studies have shown that restraints on FMS cost the US about 20 billion dollars in gross national product terms and 0.3 percent in higher unemployment". [Ref. 3, p. 2] Also with US military downsizing, FMS will greatly reduce the risk of US forces that will have to be committed in support of US interests. Foreign military sales, in combination with different forms of international exchange of goods, services and know how, have become a most important complement to increase the domestic market. [Ref. 3]

"FMS also has been used as security assistance for the transfer of military and economic assistance through sales, grants, leases, or loans to friendly foreign Governments." [Ref. 3, p. 14] Since the end of the cold war, the military market has been unable to support military production. Production has become more expensive, and military demands must compete with other social issues. Although used as security assistance, FMS has become a necessity in supporting military production and subsidizing the cost of weapon systems. In addition, FMS sales must include continuous employment and technology benefits for producers, lower acquisition cost for customers and sustained readiness for expanded service. [Ref. 4]

The military foreign market is being shaped by long-term arrangements. Competitive forces are limited. The intensity of foreign competition (often subsidized by their own foreign governments) in the international market for military products, requires Navy FMS procedures which will expedite transactions on behalf of the FMS program, rather than procedures designed to protect the interest of the foreign customer. Among the trends most relevant in shaping FMS policy are:

1. The increasing number of competitors with competent weapon platforms;
2. Weapon suppliers who have entered the market for economic reasons only;
3. The vulnerability of Third World Nations to economic support and military dominance; and
4. The need for super powers to subsidize weapon development and deplete unwanted inventories. [Ref. 4]

Many feel that reliance on arms sales, to keep open production lines for systems, only postpones the orderly reduction and restructuring of the weapon industry that should be an essential part of any strategy for competitiveness. In addition, money used to promote weapon exports should go instead to develop and promote commercial exports that do not depend on violent conflict and political tension. [Ref. 5]

A restrictive formal military sales policy would not be able to meet the demands of our allies. This could potentially drive FMS customers to seek business elsewhere. Therefore, a restrictive policy has been hard to support for three reasons. First, the domestic military market is increasingly unable to support indigenous military production because production is becoming more expensive due to military demands upon the main buyer, the Government. [Ref. 4] Second, to maintain indigenous military production, foreign military sales have become a direct necessity to subsidize military production rather than an indirect effect providing support to allies. Third, the international market is increasingly being shaped by long-term cooperative agreements rather than by competition for limited one-time export sales. These forms of competition have changed due to the technological complexity and capital requirements of advanced military production. The most important of these issues is the development and impact of foreign

competition and foreign government demands to offset procurement. Restrictive policy has not had an influence on FMS because of the necessity to open the international market to the US industrial base. Current policy is attempting to provide opportunities for the defense industrial base without transferring advance technology.

Current agreements between US and FMS customers have been such that weapon systems and defense articles purchased will be supported throughout the expected life of the system. Life cycle support permits comparison of cost and acquisition alternatives under consideration by the FMS program manager on behalf of the FMS customer. Life cycle support must demonstrate whether a system which meets affordability goals can be procured, operated and supported efficiently and effectively for the programmed and budgeted resources. [Ref. 6] Follow-on logistics support cases are a major type of FMS case with particular emphasis on cooperative logistics supply support.¹ Cooperative logistics supply support provides repair part support in which the FMS customer purchases equity in the US Weapon System inventory. This inventory is centrally managed stock numbered items, repair parts and material issued from stock below reorder levels. [Ref. 6]

The life cycle support for a US system has the versatility to be arranged in several ways. The main goal is to efficiently and effectively integrate material support into a foreign Government's military structure. Each system is evaluated for logistics support processes, procedures and requirements. The US Navy suggests integrated logistics support (ILS) will vary depending on the nature of the sale and existing capabilities of the foreign country. ILS is defined as a disciplined, unified, interactive approach to management and technical activities necessary to integrate support considerations into system equipment. [Ref. 7] These objectives should be met with a minimum of costs required to support operations. "For FMS, detailed ILS planning must be performed to develop tailored or modified support for the system requested by the purchasing country."
[Ref. 7, p. 15-3]

¹ FMS Cases are United States Government to foreign government sales for cash or approved credit. All FMS are titled cases. A specific sale of a weapon system may be composed of several cases making a totality of the system (i.e., hardware, spares, training, manuals, follow-on logistic support). [Ref. 8, p. 47]

Obsolete weapon systems require such detailed ILS planning. Obsolete equipment is military equipment scheduled for decommissioning, disposal or potential FMS transactions. Obsolete inventory although not in the US active military inventory still has a useful service life. [Interview 1] This service life is dependent upon the effectiveness of integrated logistics support. Obsolete equipment sales have been seen as a potential revenue producer for the DOD and will relieve the disposal, storage and maintenance costs of obsolete equipment. FMS policy has not been restrictive and encourages the sale of obsolete equipment to meet the demands of our allies. In the past, FMS policy has encouraged the countries of the free world to make greater contributions for their own security. Former Secretary of Defense, David Packard stated: "The best hope of reducing US overseas involvement and expenditures lies in getting allied and friendly nations to do even more than they are doing now in their own defense." [Ref. 9, p. 9] Packard went on to say that the United States must keep providing tools that these countries need to assure a bigger load of their defense responsibility.

Many allies are not inspired by 20-30 year old weapon systems and would prefer modern, innovative, new weapon systems. To encourage and promote the sales of these cutting-edge weapon systems the Navy has identified ILS as a positive reinforcement for the foreign customer. The foreign customer must understand the advantages of purchasing the weapons system and feel absolutely certain the system will be supported throughout its life cycle. This also must be an economically attractive purchase, since new full-scale productions could be too expensive. The downsizing of the military prevents the Navy from providing needed logistics support. However, through ILS contracting this support can be provided by commercial contractors.

The total package approach contract is one idea that is being explored as a potential solution. A total package approach is a procedure to ensure that FMS customers are advised of available opportunities. The customer is advised to consider all support items, training and services required for the introduction or increase in the quantity of a major item/system and to sustain it in operational conditions.

The omnibus contract is a vehicle used to present the total package approach. The omnibus contract for the Navy's FMS program will include design and configuration management, field engineering maintenance planning, maintenance, spare parts support, training casualty and depot level repair. The omnibus contract is a radical change from previous FMS logistics support. The omnibus contract will require the successful contractor to be completely familiar with the support for the weapon system which is scheduled for removal from the US Navy active major weapon systems inventory. [Ref. 9] The omnibus contract would remove the responsibility for out-of-inventory equipment from the Navy ILS. These services would be contracted-out with US Navy oversight responsibility only.

This thesis will explain the effects of omnibus contracting for integrated logistics support. Out-of-inventory military equipment will be the subject used to examine the objectives of omnibus contracting, and whether these objectives meet the needs of the Navy's FMS program and the FMS customer.

B. BACKGROUND

Naval Air Systems Command is currently engaged in a project to put together a omnibus logistics support contract for out-of-inventory aircraft. This idea was initiated by the Naval Aviation FMS Logistics Process Improvement Team (LPIT). LPIT was charted by Naval Air Systems Command and Naval Supply Systems Command to review FMS logistics issues that require action or correction. The Logistics Steering Committee (LSC) reporting to the LPIT is responsible for exploring logistics issues such as the omnibus contracting alternative. The mission for LSC is as follows: "The LSC will function as a collective body to review FMS logistics issues, and synthesize those issues which require action or corrective action." [Ref. 1, p. 1] The test platform for the omnibus contract will be the SH2 aircraft scheduled for decommissioning. The SH2 is a Light Armored Multipurpose System (LAMPS) helicopter used for anti-submarine warfare and transported by 1052 class Frigates, also scheduled for decommissioning.

The shrinking defense budget has renewed competition for Department of Defense dollars between private industry and military depots, arsenals and maintenance facilities. The Section 800 Report Summary from the DOD Advisory Panel on Streamlining and Codifying Acquisition Laws has stated that: "... a managed build-down must not only seek a balance between foreign and domestic spending, but also within domestic spending between commercial and Government owned and operated facilities" [Ref. 10, p. 53] The panel sought to replace Title 10 regulating DOD contracting for commercial services under OMB Circular A-76. These laws include restrictions on contracting-out core logistics and specific guidance on depot level repairs. The Panel proposed that DOD Secretaries be allowed to procure from the private sector, if sources are available, services and supplies at a price lower than a Government source. Core logistics cannot be defined as ILS support for obsolete equipment. [Ref. 10, p. 53] The omnibus contract supports streamlining initiatives to transfer ILS to the private sector and the contract supports the revitalization efforts of the defense industrial base. The omnibus contract initiative has originated from budget and force reductions since the cold war. The current domestic defense environment is constrained by budget restraints and the US defense industry is in a difficult environment because of down-sizing. Military equipment purchased with grants and foreign military sales credits now must be purchased with cash. Cash payment tends to breed a culture of instant results, therefore less investment into long-range major weapon systems procurement is occurring. [Ref. 11]

Some of the needs of the FMS customer can be met with obsolete weaponry. However, the support of that weaponry is in question. Current down-sizing and base realignment commission decisions have propelled the omnibus concept. The Naval Supply Systems Command are purging its stocks of out-of-inventory spare parts. These parts are scheduled for disposal, but are needed to support FMS programs. To create a market for the use of these parts and a source to manage these efforts, will not only assist in the down-sizing but assist our foreign allies as well. This market will be a conglomerate of foreign customers with centralized ILS support through an FMS

omnibus contract. This service is intended to relieve the US Navy of ILS responsibility with efforts transferred to a US defense contractor.

The FMS omnibus contract is a concept without precedence. It is an initiative with a strategic planning foundation that requires conceptual thinking and careful planning. This initiative embellishes the future of FMS and provides a positive structure for DOD obsolete equipment inventories.

C. OBJECTIVE OF THE THESIS

The objective of this thesis is to evaluate the omnibus contract concept before negotiations and award. The omnibus contract will be assessed to meet the goals and needs of the FMS program. The study of the omnibus contract will help eliminate contradictions, ambiguities and unclear requirements. This assessment will assist in the strategic planning for the use and benefits of omnibus contractual agreements.

D. THE SCOPE AND LIMITATIONS OF RESEARCH

The scope of this thesis includes an analysis of a draft statement of work and presolicitation requirements from Naval Air Systems Command and interviews with FMS customers. Chapter II, "The Needs of the FMS Customer", discusses the results of interviews conducted at Naval International Logistics Control Office (NAVILCO) with Security Assistance Foreign Representatives (SAFR). The concerns identified represent concerns the foreign customer has with commercially contracting integrated logistics support.

Chapter III, "Omnibus Contracting", defines omnibus contracting in terms of integrated logistics support and explains how a total package approach will be used to develop the omnibus concept. This chapter also explains features that the omnibus contract must include to be successful.

Chapter IV, "The Strengths and Weaknesses of the Omnibus Contract", discusses the strengths and weaknesses of the omnibus contract in five specific contracting areas. These areas include: Source Selection Criteria, Statement of Work, Specifications,

Contract Type, and Contract Management. The omnibus contract will be compared to having single contracts for each ILS function, as opposed to one all-inclusive contract.

Chapter V, “Conclusions and Recommendations”, presents the research findings and resulting recommendations, as well as recommended areas for further research.

This study does not include alternative methods of contracting for foreign military sales integrated logistics support. For the purpose of this study, it is assumed that the reader is generally familiar with the procedures and terminology for foreign military sales of integrated logistics support.

E. RESEARCH QUESTIONS

The following research questions are addressed:

1. Primary Research Question

What would be the essential features associated with an omnibus contract for integrated logistics support and will this type of contract meet the needs of the FMS customer and the US Navy’s goals for out-of-inventory equipment?

2. Subsidiary Research Questions

1. What are the needs of the FMS customer and how will the omnibus contract support them in the future?
2. What is an omnibus contract and how does this type of contract benefit the FMS program?
3. What is obsolete equipment and how does FMS fit into the strategic plan for this equipment?
4. What are the strengths and weaknesses of an omnibus contract and how effective will it be?

F. RESEARCH METHODOLOGY

The research methodology employed during this study involved two primary methods.

1. Interviews

Interviews were conducted at three major systems commands, including NAVAIR, NAVSUP, and Aviation Support Office (ASO). A series of interviews were conducted at NAVILCO with SAFRs to gather their perspective as potential customers of the omnibus contract. NAVILCO also provided background information and interviews with logistics support personnel on status of the current Navy FMS ILS system. Informal interviews were conducted at NAVAIR's FMS Logistics Conference in Washington, DC, in May, 1994. This conference provided background on new FMS logistics initiatives. Telephone interviews were conducted with industry representatives currently working the omnibus issue and questions and concerns passed on to the regional contracting office were discussed.

2. Literature Search

An extensive review of available literature related to foreign military sales integrated logistics support was conducted from material obtained at the Dudley Knox Library and the Defense Logistics Studies Information Exchange (DLSIE). The literature search provided background information on integrated logistics support and related subject matter. Additionally, the literature search concluded that little information existed concerning omnibus contracting. Lastly, a review of defense streamlining initiatives were analyzed to evaluate the effect it would have on omnibus contracting.

II. THE NEEDS OF THE FMS CUSTOMER

A. INTRODUCTION

The US foreign military customer is a diversified group with over 100 countries each with their own specific needs. Major General Thomas G. Lightner, US Army, Commander of Army Security Affairs Command (USASAC) states:

Our challenge is to assure the customer's satisfaction with the security assistance program by being ever responsive to their needs. The security assistance program is an important instrument of our foreign policy. When we look at the countries we support, we are reminded of just how diverse these countries are, at least from the security assistance point of view. [Ref. 13, p. 93]

USASAC has developed three primary goals:

1. To provide material, services and training to customers in an efficient manner.
2. To ensure proper financial stewardship of customer funds.
3. To increase productivity and responsiveness through automation.

These goals meet the concerns and needs expressed by the FMS customer and are congruent with the ideas researched during the analysis of this thesis.

The needs of the FMS customer were formulated by interviews conducted at Naval International Logistics Control Office (NAVILCO) located in Philadelphia, Pennsylvania. Twenty-six Security Assistance Foreign Representatives (SAFR) were interviewed to isolate the needs and concerns of their countries. The SAFRs monitor their country's program and provide NAVILCO with immediate customer access. Each SAFR was asked a series of questions concerning the technical abilities of their country, their needs as FMS customers, improvements that can be made with Navy ILS, the service they received at NAVILCO, the management service of Navy ILS, defense contractor participation in Navy ILS, and concerns they would have if ILS support was contracted to commercial industry. These interviews were evaluated and summarized into eight areas of concerns. The FMS customer concerns with the ILS contractor were

similar to Navy ILS. SAFRs felt pleased with current US Navy ILS services and thought only fine tuning was needed to improve logistics support. [Interview 2] The foreign customer realized that the DOD down-sizing and streamlining initiatives, such as the omnibus contract, would pay large dividends for their own FMS program in the long run. [Interview 3]

B. FOREIGN MILITARY SALES CUSTOMER CONCERNS

The first concern of the SAFRs is the costly process of creating ILO support from their own or other countries. With the exception of Japan, SAFRs were overwhelmingly supportive of US ILS, whether it was the US Navy or the US Defense Industry furnishing the support. Seventy percent of the SAFRs felt that their own country could not, in a cost effective manner, provide them all phases of ILS support with any consistent success. US Navy equipment is becoming more complex, therefore many developing countries cannot afford or do not have the expertise to utilize technologically advanced weapon systems. FMS customers preferred that the US Navy take the lead in high quality equipment. The start up cost and development of technical capabilities would be too time intensive to meet the immediate customer needs. In addition, since systems are of US origin, FMS customers felt that ILS support best rest with US support. [Interview 4]

The second concern is the foreign countries' satisfaction with the US Navy managing ILS support. NAVILCO's performance of ensuring that FMS cases meet contractual requirements have been very successful and is a needed function for foreign countries. SAFR's still prefer that NAVILCO be responsible for oversights in the omnibus contractual arrangement. NAVILCO serves as the single point between customer countries and the DOD supply system. The vast majority of requisitions for both initial outfitting material and follow-on support flow through NAVILCO into the supply system. NAVILCO is responsible for a cost effective and responsive source to FMS customers and US Navy FMS managers. FMS customers insist that NAVILCO be heavily involved in the omnibus concept and be given direct oversight responsibilities.

The third concern is the FMS customer's preference for centralized ILS management. ILS requires consistent efforts from suppliers and FMS customers prefer not to interact with a wide range of vendors, but have centralized ILS support. The FMS customer engages in minimum direct sales, and the support is centrally arranged by the Navy.² The FMS customer is supportive of transferring ILS to a contractor, but the same centrally managed system needs to be provided. Although typical Naval support has not been centralized, particularly between maintenance and supply channels, case managers have attempted to pass communication between these distinctive parts to present a single logistics view to the FMS customer. The FMS customer feels that with a contractor managing ILS this area would require much more attention and a centralized approach is imperative. Heavy reliance will be placed on a contractor to manage all areas of logistics support. Therefore, clear, comprehensive and centralized management is a very important FMS customer requirement. [Interview 4]

The fourth concern is increasing the number of foreign customers participating in the omnibus contract, which in turn results in lower cost. Foreign customers feel there is strength in numbers and the success of the omnibus contract depends on maximum participation of FMS customers. The FMS customer feels there is going to be a cost for not being the preferred customer, and since the US Navy will not be requiring obsolete spares or services, the learning curve will rise, as will the prices. [Interview 4] The FMS customer has realized that other friendly nations have similar logistics objectives. Collectively these nations have a powerful market that commands attention and generates enormous requirements. This FMS customer wants to use this demand to become the preferred customer and enhance his independent defense capability.

The fifth concern is configuration management.³ The Navy has done a very good job of configuration management and civilian contractors must insure that a configuration data base is maintained. Configuration management is an experience concern, therefore

² Direct sales are foreign military sales transactions between foreign customers and private industry. There is no intervention in direct sales other than the requirement for approval by the US State Department.

³ Configuration Management is the process that identifies functional and physical characteristics of an item during its life cycle, controls changes to those characteristics, provides information on status of change actions, and audits the conformance of items to the imposed system.

the civilian contractor must display and build the confidence of the FMS customer. The FMS customer's concern is that the contractor must stay abreast of configuration changes that not only prolong the life of a weapon system, but also improve upon the weapon system. The FMS customer insists that these efforts be closely monitored by the US Navy to ensure cost effectiveness and cost efficiency. The FMS customer also is concerned that new sources may produce noncompatible parts. Engineering change proposals need to be carefully tested and screened to ensure interchangeability of line replaceable units, with no impact on maintenance procedures at organizational, intermediate or depot levels.

The sixth concern is that lead times must not slip to any longer than currently experienced through Navy ILS. FMS customers are concerned that without US Navy participation, lead times will slip on critical parts. Lead time is one of the few problems FMS customers identified in the current system. The omnibus contract would receive support if lead times are improved or at least maintained at current levels. [Interview 4]

The seventh concern is that the same priority system must be used to determine who receives requirements and in what order. Currently priorities are assigned by urgency of need determined by the FMS customer, with first-come, first-served opportunities. FMS customers would like to continue this system with no particular FMS customers receiving preferred treatment. [Interview 4]

The eighth concern is the visibility of assets. FMS customers feel repair parts and stock should be visible for the customer to see and access at all times. This gives the FMS customer access to information that is critical to long range planning for maintenance and overflow periods. The customer wants to be able to anticipate the availability of items that may not require protection of assets to meet a specific need. [Interview 5]

The FMS customer realized that without US Navy influence it is hard to locate parts for obsolete equipment. Since the origin of these obsolete weapon systems is the United States, FMS customers felt more secure in the US's ability to manage ILS. Commander Roman, a SAFR from Columbia, emphasized the view that management was

more important than cost. He placed tremendous value on the confidence that the US Navy has demonstrated in managing the customer's interest in the FMS program. Commander Roman insisted that this confidence must be maintained in an omnibus concept. He also emphasized that with the ILS manager comes the identification of military and civilian personnel with the skills and grades required to operate and support a material system over its life time. [Interview 6] Management of ILS requires experienced personnel that can manage the specific needs of each FMS customer and a tailored response that meets each requirement.

The FMS customer has changed dramatically; choices of weapon systems are now available to him that were not available ten years ago. Therefore, the US Navy must be increasingly ready to meet the needs of the FMS customer. These needs will include the following test of requirements cited by George P. Psihas, a former corporate vice president of General Dynamics:

A typical customer requirement for FMS will include offset/industrial cooperation, trials and production demonstrations, latest version configuration, bilingual capability, competitive pricing, early delivery, unit activation assistance, product warranty service, in-country management participation, participation in contract negotiation, and justification of cost incurred by the contractors. [Ref. 12, p. 1]

Mr. Psihas summarized the needs of the FMS customer. His solution to meet the needs is cooperation and partnering among the FMS customer, the defense industry, and the military services. Cooperation and partnering will produce a customer-focused and responsive FMS system. The FMS customer desires a system that ensures that the customer's needs and requirements are met on a basis that is at least equal to all similar FMS customers. [Interview 1]

The omnibus concept must be designed with the FMS customer's needs in mind. Attention must be given to the concerns and ideas the customer has expressed. The omnibus concept takes responsibility for these needs and strategically plans methods to meet these issues. The FMS customer has bought into the omnibus concept and is willing

to invest into its development. The agenda of the US Navy FMS program is to develop strategic plans to meet these objectives. [Interview 7]

C. SUMMARY

The FMS customer has a variety of needs that only can be met through individualized service. Each FMS customer's requirement must be met with tailored solutions. Even though the FMS customer concerns about the omnibus contracting are consistent with the concerns identified by Navy ILS, improvements in customer satisfaction remain a high priority. The challenge of the omnibus contract is to meet the needs of the FMS customer within the objectives of the Navy's FMS objectives. [Interview 7]

The FMS customer requires additional emphasis on cost, the Navy's interface, centralized management, maximum foreign country participation, configuration management, lead times, priority system, and visibility of assets. These areas are closely related to the goals of customer satisfaction stated by the security affairs command and very important to the strategic planning of Navy FMS. The stronger the emphasis on the concerns and needs of the FMS customer, the faster improvements will be made to Navy FMS, which in turn will improve customer satisfaction. These improvements also secure a role and an influence in the FMS market for the FMS customer and the defense industrial base.

III. OMNIBUS CONTRACTING

The term omnibus contracting can be defined as an all inclusive contract that is designed to comprehensively meet the customer's requirements. An omnibus contract is configured to meet a variety of requirements, and unite these requirements into one agreement to be met by a single contractor. Omnibus contracts have traditionally been for overall services. NAVAIR FMS is attempting to use the omnibus concept for integrated logistics support for the SH2 Helicopter, which will require customer interaction and decision making authority not only for services, but for maintenance and spare parts purchasing. Usually these acquisitions are purchased separately with different contractors performing different roles. The omnibus contract will allow participating countries to go to one contractor. This one contractor must interact with the FMS customer to produce a tailored ILS plan that maintains the customer's major weapon system in operable condition in the most cost effective manner.

A. OMNIBUS CONTRACTING: A RADICAL CHANGE

The omnibus initiative is a radical change from previous FMS logistics support, where the Navy took responsibility for the foreign customer's logistical needs. The omnibus contract for NAVAIR will require the successful contractor to be familiar with the support for the SH2 Helicopter that is no longer in service, or planned for removal from the US Navy's active major weapon system inventory. The services for this program will include design and configuration management, field engineering maintenance, planning, maintenance, spare parts, support, training, casualty and depot level repair. [Ref. 9, p. 7]

An omnibus contract is viewed as a total package approach. A total package approach is a procedure to ensure that FMS customers are advised of and afforded the opportunity to consider all support items, training and services required for the introduction or increase in the quantity of a major item/system and to sustain it in an operational condition.

The total package includes but is not limited to: a viable balance between the basic and items/system and its ancillary items; initial and follow-on support; backup support such as special tools and test equipment; facilities and construction; documentation and publications; operation and maintenance training. [Ref. 14, p. 43]

All material, training and services offered to a customer are scheduled and delivered in a sequence that is reflective of the operational requirements of the system. In addition, cost estimates will assist the FMS customer in projecting total investment, maintenance, and operating cost over the life cycle of the item/system, i.e., the total cost of ownership.

B. OUT-OF-INVENTORY EQUIPMENT

A unique idea about the omnibus contractual arrangement is that the service is for out-of-inventory major weapon systems. Out-of-inventory equipment has been removed from the weapon system arsenal, and parts and services are being purged from supply and maintenance systems. For the sale of these weapon systems the Navy has guaranteed the FMS customer life cycle support. Therefore not only will equipment be sold but ILS support will be packaged with the sale of aircraft.

Current down-sizing and base realignment commission decisions have propelled the omnibus concepts. Specifically, Naval Supply Systems Command (NAVSUP) activities have been purging their stocks of out-of-inventory FMS spare parts. Creating a market for the use of these parts and a source to manage these efforts will not only assist in the down-sizing, but assist our foreign allies as well. Affordable weapon systems with ILS support will be available for sale if a capable contractor can meet the omnibus requirements. Efforts by NAVAIR FMS logistics have slowed the purging of stock. However, NAVSUP is required to meet down-sizing objectives, and the omnibus contract has been offered as a solution. The omnibus contract will require a US defense contractor to accept these parts and manage the integrated logistics of issuing and storing these items as potential requirements for FMS customers.

The omnibus contract does maintain that only the foreign government can make the final decision as to what extent the services of the contract will be used and to what

extent the services will be accepted. The omnibus contract provides a single face to the foreign customer that fosters a cooperative and teaming approach for ILS requirements. The teaming approach is similar to the US Navy's Cooperative Logistics Supply Support Arrangement (CLSSAs) with FMS customers. A CLSSA is a cost sharing stock replenishment program available to USN FMS customers who operate modern weapon systems that are common to our inventories. "Under a CLSSA, customer operations and planning data are combined with USN demand data to determine the customer anticipated support." [Ref. 6, p. 28] The omnibus contract will require the customer and contractor to join in a cooperative arrangement to plan and execute ILS which potentially provides a cost effective solution to logistics support.

The omnibus contract provides the customer the data, information and advice necessary to make decisions regarding ILS support. Intensive management is used to supervise the FMS customer's logistics support to insure that requirements are met within a committed time frame.

Tailoring is an important concept of the omnibus contract. Since the omnibus contract is all inclusive, it provides for communication between logistics channels that facilitate strategic planning to meet the specific needs of the FMS. As discussed earlier, each FMS customer is different, and each customer must be evaluated in accordance with the customer's in-country supportability. Blanket ILS support may not meet the needs of in-country capabilities. Therefore, assessments of support requirements which identify required levels of support and develop a plan to meet those levels is necessary. [Ref. 7]

The omnibus contractual arrangement will change how FMS logistics is done, and also could influence the entire DOD logistics system. Once Navy stock is purged from the omnibus contractor, potential commercial practices for inventory management can be introduced. General Accounting Office (GAO) concluded in a June 1993 report, that the private sector has an industrial capability that uses similar maintenance and repair supplies for regularly scheduled maintenance of equipment. Faced with increasing costs associated with acquiring supplies, spare parts, and raw materials, some private sector managers have developed new inventory management techniques to eliminate the need to

buy more, and distribute large quantities of supplies. [Ref. 7] The private sector has tried these new techniques on maintenance and repair items because these items are generally standard and are commonly stocked by several suppliers, and because they are used in large quantities on a regular basis. In addition, bulky maintenance and repair items require a significant amount of storage space.

C. FASTLINE CONTRACT

The omnibus contract is a good test for these techniques because capital investment for such projects are provided by the FMS customer. One such idea has already been adopted by FMS management. Currently, FMS Acquisition Team Line (FAST LINE) is an FMS program which has commercialized the procurement for foreign military sales. FAST LINE is being used to assist in the backlog of purchasing needs for FMS customers. FAST LINE is a commercial acquisition support service for the procurement of FMS port numbered/non standard items/service which cost less than \$25,000. The goals of FAST LINE are focused on improving the US Navy support to FMS customers by improving material delivery times, obtaining the best price available and reducing customers' Reports of Discrepancies (RODs) by performing 100% material inspection and providing flexibility and alternate sources to the procurement process.⁴

The omnibus contract takes the FAST LINE purchasing theory further. FAST LINE identified the strengths and weaknesses of commercially contracting a task traditionally performed by the Navy. FAST LINE received success and has helped reduce the lead times for the FMS customer. FAST LINE has improved customer status, with access to database remarks and alternative sources from the Naval Supply System have been developed. Although FAST LINE is transparent to the FMS customer, the omnibus contract requires more interaction between customer, military and industry. The omnibus contract also must employ more commercial practices that have been tested and proven in the industrial ILS environment. [Interview 10]

⁴ Reports of Discrepancy (RODs) are report files by customers for payment or replacement of repair parts with discrepancies of condition, price, quantity, or type.

The omnibus concept will change the role of the case manager. Traditionally the Navy has been in control of the execution of the FMS ILS program. The ILS program will transfer the operational responsibility of ILS to commercial industry. Oversight will still be the responsibility of the Navy. Successful ILS management is a primary concern of the Navy, creating a cooperative relationship between the FMS customer, the omnibus contractor, and the US Navy. Each partner shares in the responsibility of meeting the requirements of the contract.

D. SUMMARY

The omnibus contract is a vehicle to deliver complete integrated logistics support to the FMS customer. The omnibus contract will use the total package approach to advise and give the FMS customer an opportunity to make informed decisions about the support of purchased obsolete weapon systems. The omnibus contract will require tremendous interaction between the FMS customer, the US Navy and the awarded contractor to strategically plan and develop a tailored ILS plan. Tailoring is important when defining the omnibus concept because each customer's participation and capabilities in the FMS program are different. [Interview 8]

The omnibus contract is an excellent opportunity to use commercial logistics practices to improve the efficiency of the FMS logistics program. New inventory and maintenance techniques are being used in the commercial markets and should be explored for use in the FMS program. [Interview 9,10] If commercial concepts are successful, these techniques should be transferred for use in the US Navy logistics system. In addition, new ILS techniques may be necessary in restoring inactive weapon systems to active status. The omnibus contract provides an avenue to keep commercial industry involved in ILS and satisfies a need for defense contingency planning. [Ref. 26] The omnibus contract must not be looked upon as a relief for the Navy ILS system, but as an opportunity to make advances in ILS support.

IV. THE STRENGTHS AND WEAKNESSES OF THE OMNIBUS CONTRACT

A. INTRODUCTION

The strengths and weaknesses of the omnibus contract can be assessed by examining five functional areas of contracting. These areas include:

1. Source Selection Criteria
2. Statement of Work
3. Specifications
4. Contract Type
5. Contract Management

The functional areas are compared to the concept of omnibus contracting as a multipurpose single contract in contrast to the idea of having separate contracts for each ILS function. In addition, opinions of the internal strengths and weaknesses of the omnibus contract will be suggested.

The omnibus contract focuses on the interdependency of functional ILS areas and the presentation of these functions as a total package to meet the FMS customer's requirements. The package relies on this interdependency of ILS functions to achieve the contract's objective. Therefore, strengths in an ILS functional area could be overcome by weaknesses in other areas, and weaknesses in an ILS functional area could force other strong areas to become weak. Attention must be devoted to the process of ILS support versus the competency of each functional area. The idea of a total package approach also applies to the five functional areas of contracting stated above. Each must be analyzed separately, however, as interaction between all these areas is just as important. The total package approach will require a company with broad capabilities that can meet all the requirements of FMS ILS. The ILS package promotes efficiency that cannot be achieved with separate contracts.

Omnibus contracting has the potential to present all the same concerns as a single purpose contract. However, with the complexity of interdependency, it potentially provides a new set of concerns. These concerns must be identified, anticipated and controlled. This chapter will help identify these potential areas. Information has been gathered from industry, Naval FMS logistics and FMS customers to formulate the strengths and weaknesses of the omnibus contract. These points of view were evaluated against contracting principles to explore areas of concern before contract award.

The evaluation of the omnibus contract will emphasize the flexibility the contractor will need to make quality decisions on behalf of the FMS customers. Flexibility will enhance the contractor to explore innovative ideas in meeting the demands of requirements of obsolete aircraft. The flexibility will greatly depend on the competence of the contractor, however streamlining of specifications, contract management, test and evaluation are steps to increase flexibility and promote efficiency.

The exploration of commercial practices for logistics is an additional idea that must flavor the evaluation of a suitable contractor. The search for services and spare parts for obsolete aircraft will become more difficult as industry ceases production and inventories diminish. Commercial practices must be explored early in the omnibus contracting cycle to maintain continuity in performance of the FMS ILS function. Commercial practices must be given comprehensive attention to stabilize price fluctuations and supplier delays. The omnibus contractor cannot be instantly held to military specifications and standards without flexibility to explore commercial logistics practices to enhance contractual performance.

B. SOURCE SELECTION CRITERIA

The Source Selection Evaluation factors for selecting a contractor to perform the omnibus contract are being developed by the Naval Regional Contracting Center, Philadelphia Detachment. Evaluation factors will be very similar to the following criteria from an earlier draft:

(1) The Government intends to make award to the eligible responsible offerer whose offer, conforming to the solicitation, is determined most advantageous to the Government, cost/price and other factors considered. The Navy's evaluation of proposals will consider the offeror's technical proposals more important than the offeror's cost/price proposal.

(2) The technical evaluation factors are listed below in the descending order of importance.

(a) Technical Approach

(b) Personnel Qualifications

(c) Management Plan/Approach

(3) Cost will be evaluated for cost realism. Cost realism pertains to the offeror's ability to project costs which are realistic and reasonable and which indicate that the offeror understands the nature of the work to be performed. [Ref. 10]

These source selection criteria are very typical of criteria proposed for life cycle support of Naval FMS Aircraft. However, for an omnibus contract typical generic source selection criteria may not ensure unique requirements are met. The contractor will be heavily evaluated for his technical ability versus cost/price.

1. Technical Evaluation

A technical evaluation for an omnibus contract requires strong performances in maintainability and reliability. [Ref. 16] The strength of the technical evaluation is the ability of ILS support to meet or exceed the operability requirement of the weapon system. The contractor's proposal must emphasize the continuity of the integrated logistics support throughout the life cycle of the aircraft. Methodologies and techniques will be evaluated for cost effectiveness of technical manuals; maintenance and supply support for spare parts and the capability to conduct logistics support cost analysis. In addition, time and operability in support of the FMS customer will also be evaluated. [Ref. 17]

The technical management of the omnibus contract must be evaluated for detailed planning, scheduling and the capability to conduct system engineering management and quality control. The integration of these areas will also entail detailed configuration and data management, including a risk assessment of the management of the technical interface of subcontractors.

The strength of the technical criteria is validated by the soundness of the contractor's approach before contract award. Engineering, design and technical management practices used by the contractor will be potentially complied with, if validated by the technical criteria proposed in the contract. The technical evaluation must identify the contractor's understanding of the requirements of the omnibus contract through its technical proposal. [Ref. 18] The omnibus contract is a new approach and new commercial practices will be used to enhance the ILS process. These techniques must be tested and proven for integration into an ILS system.

The weakness of a strong technical approach is that rigid techniques and procedure may eliminate the flexibility needed to meet unique FMS customer requirements. FMS integrated logistics support cannot be generically managed by a inflexible technical system. Weak technical management will produce ILS support that is inflexible and insufficient to meet customer requirements. In addition commercial technical approaches may not be configured to meet the requirements of the FMS customer whose systems are traditionally compatible with the US Naval ILS. [Ref. 7]

A requirement of the omnibus contract is that the contractor must interact with US Navy logistical systems. This requirement may limit innovation in the contractor's technical approach, if a wide ranging spectrum of capabilities are required, to meet the technical requirements. US Navy ILS Systems are currently in transition to more innovative techniques. If the omnibus contract is required to interface with older less efficient ILS systems only, than potentially achievements are hindered or slowed form exploring new cost effective logistical techniques. The omnibus technical approach must be configured to utilize efficient commercial practices and also have the ability to interact with military ILS systems.

2. Personnel Qualifications

Source selection criteria emphasizing personnel qualifications is extremely important. The omnibus contract requires versatility and well diverse personnel are needed to meet the challenges of FMS ILS. Personnel qualifications will include proposed manpower, staffing by shift and the shift classification for each organizational element for the initial contract period and all option years. The qualifications should include sufficient details to insure that personnel are capable of meeting the technical and management requirements of the contract. [Ref. 17]

The strengths of personnel qualifications lie in the skill level mix for each element of the organization. Cross-utilization of personnel and cross-utilization training enhances the skill level mix needed for sound personnel qualification area. Cross-utilization ensures that personnel are capable of performing other ILS job functions. Cross-utilization strengthens the interdependence of the omnibus concept. [Ref. 19] The omnibus contractor will require a skilled mobile workforce that can perform field and depot level maintenance. This workforce must be in tune to the cost objectives and life cycle cost initiatives of the FMS customer. The omnibus contract will not perform efficiently if all levels of personnel are not striving to meet the cost objectives. Therefore, cross-utilization training is a mandatory function of personnel qualification. Without cross-utilization training, integration will not be stimulated and growth of FMS ILS functions of personnel skills will be slowed.

The weakness of personnel qualifications is that the skill level of personnel cannot meet the requirements of the contract. Performance standards of personnel if not clearly identified can potentially muddle the process and prevent efficiency. Personnel qualifications with no performance standards, follow-on training and performance review offers no self-correcting procedure to improve the ILS process. The omnibus contract requires consistent monitoring, improvements to the process and these efforts must begin with personnel qualifications. [Ref. 18]

3. Omnibus Management

The strength of management under the omnibus contract will be the continuing interface between the program management office, personnel and other logistics requirement sources. The strength of management will be measured on first providing a complex plan in an understandable manner for support of the obsolete weapon systems. Secondly a strong detailed ILS program must be communicated to the customer. Third, management must demonstrate the ability to gather the necessary information on ILS for a sound decision on behalf of the FMS customer. The strength of management depends on its ability to plan ILS for the FMS customer and execute that plan effectively. [Ref. 17]

The weaknesses of management are centered on management's inability to integrate the omnibus functional areas of maintenance, configuration arrangement and purchasing and not allowing these areas to perform as separate functions. The omnibus contract proposes to give management the flexibility to act efficiently for the FMS customer, however increased flexibility requires the contractor to have internal controls to manage the risk of the contract. Risk management controls must be examined to ensure that life cycle expenditures are evaluated. [Ref. 17]

C. STATEMENT OF WORK

The statement of work (SOW) provides a basis for the successful performance of the contract. [Ref. 22] While ensuring that potential offerors may compete equally the SOW must become the standard by which the contractor's performance is measured. The statement of work for the omnibus contract must be clear and understandable with specified terms to meet mission performance, operational effectiveness and operational suitability. [Ref. 21]

1. Statement of Work Strengths

The strength of the SOW is the flexibility to offer incentives to the contractor to meet needs of FMS customers. The SOW must strongly emphasize decision-making

abilities and enhance the contractor's potential to meet performance standards. The decision-making ability is important because the contractor will plan and employ strategies to manage the FMS customer's ILS program. Incentives must be in place to ensure these strategies are formulated in the most cost-effective and efficient manner to assist the customer. A strong statement of work for an omnibus contract will rely heavily on the integration of integrated logistics support. The statement of work must enhance the ability of the contractor to tailor ILS to meet each unique FMS customer need. The SOW must control the cost to the FMS customer by setting standards and objectives that streamline unnecessary requirements. In addition, the exploration of commercial practices must be encouraged in the SOW to allow the contractor the options to explore cost saving techniques. Cost to the FMS customer must be a foremost concern to the contractor and the statement of work must frame the decision-making authority of the contractor to promote life cycle cost.

2. Statement of Work Weaknesses

The weakness of a SOW that emphasizes decision-making authority is allowing dependence on interpretation by the contractor, customer and Government. The omnibus concept is new, and in order to control interpretation, an attempt to develop a singular opinion about requirements and methods to meet these requirements will require partnering and teaming. The SOW can not weakly define the task the contractor is to accomplish and still have the ability to implement and control reliability and maintainability. A cooperative arrangement has to be developed to ensure requirements are discussed, understood, and solutions are agreed upon and properly implemented. [Ref. 22]

Another weakness of an omnibus statement of work is that it must embellish new techniques, to maintain and repair items. Potentially, original contractors may not exist, and therefore are not manufacturing items required by obsolete weapon systems. To retool and manufacture these items would be very expensive. Commercial ideas, such as product development teams or market research groups must be used to cut cost and

maintain operability of the weapon system. If the SOW does not empower the contractor to seek out innovative ideas, then the customer has not been supported and the SOW has weakened the omnibus contract. Commercial logistics practices need to be incorporated into the FMS logistics management system. The omnibus statement cannot just transfer the Navy's logistical system to a defense contractor. Obsolescence within the current FMS system must be weeded out and the current logistical system streamlined to eliminate unnecessary requirements.

The omnibus contract is an innovative way to provide ILS support to the FMS customer. Innovation must not stop at award of the contract. The statement of work must be innovative in enhancing the decision making capabilities of the contractor and employing new commercial logistical practices.

D. SPECIFICATIONS

The omnibus contract is unique because it requires that a combination of design, functional and performance specifications to be used to formulate the requirements. [Ref. 21] Government specifications that are no longer required for obsolete equipment must be eliminated and replace with specifications that give the contractor flexibility to make cost-effective choices on behalf of the ILS customer. The main concern in developing the specifications will be the proper balance between all the specifications and the unique requirements of the omnibus contract. Early involvement of the contractors purchasing department will be the solution to developing specifications that have the proper balance between the product quality and product cost. Anticipation of depletion of spare part inventories and manufacturing sources will require advance planning to establish sources of supply.

The contractor must be aggressive to involve the purchasing department and suppliers during the early stages of the logistical support. Early supplier involvement (ESI) will optimize the development of specification to improve and maintain systems that are no longer in production. [Ref. 21] ESI will facilitate design efforts by using a design team to assist in describing the functions to be performed and the integration of

the item into larger systems. This approach uses design objectives such as cost, weight and reliability to meet the life cycle support goals. [Ref. 21] ESI prequalifies suppliers, which allows prior planning of by the supplier for manufacturing or production. In addition, prior notification allows the contractor and supplier to explore options to meet design and performance standards. Suppliers are encouraged because they can plan work schedules to accommodate demand fluctuations and critical time is not spent designing systems when crisis situations arise. For example, rotor blades for the SH2 helicopter have always been a fiber glass material. ESI could allow a manufacturer the not only manufacture a fiber glass rotor blade but also has the ability to develop a new composite rotor blade that is cheaper and meets all other specifications. To do this the contractor must have the flexibility to explore these channels to improve performance for the FMS customer.

1. Design Specifications

Design specifications will be used in the configuration management area. Since the omnibus contract will concentrate on obsolescent parts, the contractor will be involved in designing techniques and spare parts no longer provided by the original source. The contractor should be held to military standards (not specifications), and giving the contractor the flexibility to prepare design specifications will not limit his ability to apply leading technology. [Ref. 20]⁵ The weakness of using flexible design specifications is the cost of inspection. Test requirements must be stringent to accommodate quality and safety standards. The contractor's ability to improve systems with new technology and commercial practices may be restricted by Government specifications and less efficient techniques may be used to avoid testing.

2. Performance Specifications

Performance specifications for the omnibus contract would relax some of the stringent requirements required by military specifications. [Ref. 18] Military

⁵ Military standards are the performance and safety requirements the government will place on an aircraft, instead of specification which are physical requirements.

specifications such as aircraft tire requirements are strictly defined and have eliminated competition. If performance specifications were used then competition could be sought and cost-effective options developed. Once military inventories for these systems are depleted and the original manufacture no longer can provide support, the contractor must seek new suppliers. Performance requirements will allow the contractor to make choices on behalf of the FMS customer and not be limited to required military specifications. Performance specifications will allow the contractor to seek out the most advanced technology within the cost guidelines of the contract. Performance specifications will ease the preparation of specifications and assure that exact performance requirements are met. The weaknesses of the performance specifications is the poor selection of suppliers and the pricing of spares. Poor suppliers potentially provide items that do not meet performance specifications and prices of spares are not clearly defined because approaches to producing spare parts are not consistent. Competition must be encouraged during the use of performance specifications. Competition will help ensure the desired quality.

Functional specifications use the ESI approach and focus on the integration of parts into a system. [Ref. 18] The functional specification is a variation of the performance specification, which uses performance requirements to integrate items into larger systems by the design objectives. The functional specification will enhance the integration of new spares into older weapon systems. [Ref. 18] These parts should meet military standards and tests need to be structured into the performance requirements.

Specifications of the omnibus contract must be an asset to the contractor. The omnibus contractor will be supporting weapon systems with an average age of over 15 years. Most systems are no longer in production and inventories have been depleted. The contractor must be given the flexibility to deviate from military specifications to have the ability to seek out other sources of supply. This deviation will allow him to manage ILS support in a efficient and cost effective manner. The tests and approvals also must be included in the specifications to provide the necessary checks and balances.

3. Integrated Product Development

The omnibus contract has not explored the use of integrated product development (IPD). [Ref. 9] IPD is an option that can be explored to help the omnibus contractor develop new specifications for the SH2 aircraft. IPD is a recommendation made by the Process Action Team (PAT) on military specifications and standards. IPD is used mainly for developmental acquisitions, however the basic concept may be applied to the omnibus contract. [Ref. 11] IPD uses multifunctional teams instead of structured vertical departmental organizations. The right people are deployed early in the process to avoid potential problems. [Ref. 11] The IPD is a continuous process and the key is the quality of people within the functional teams. The IPD team considers all options at the time of implementation and arrives at solutions that support life cycle cost and program risk reduction. IPD brings together all functional disciplines to make the process more interactive and less reactive. IPD assists in the acquisition process by becoming an integral part of the solicitation and proposes that the contractor develop risk reduction plans to evaluate identify, control, monitor and mitigate risk. [Ref. 11] Once the contractor risk plan is evaluated a clearer understanding is gathered of how risk will be managed and who is responsible for controlling risk.

The strength of the IPD plan is evident when it provides tailored specification requirements with minimal essential specifications. It is very compatible with commercial practices and techniques. The IPD develops the right mix of commercial and Government specifications and it builds confidence in commercial business practices. The IPD will assist the omnibus contractor in developing specifications that will enhance the ILS support for the FMS customer. Unnecessary Government specifications will be replaced with commercial specifications that utilize current and improved maintenance capabilities.

The weakness of the IPD program is a heavy investment in people and funding resources up front to support a concurrent approach to new development items. In addition, the emphasis on form, fit and function impacts the procurement of spares. These two weaknesses may be turned around because the omnibus contract is not for new

development items, and a transitional period will be necessary to change to performance specifications and potentially develop suppliers for spare parts. [Ref. 11]

In conclusion, the omnibus specifications must provide the right quality for the right value. The omnibus specifications must encourage competition and avoid unnecessarily restrictive criteria. The evolution of commercial contracting rests on the contractor's flexibility in meeting the demanding challenges of logistics support. These challenges must be met with new techniques, such as IPD, that provide alternative solutions to developing specifications.

E. CONTRACT TYPE

The proposed contract type of the omnibus contract is a cost-plus-fixed-fee (CPFF) type contract. The CPFF contract proposes that the buyer pay all allowable cost and the seller be guaranteed a predetermined fixed fee. The CPFF is traditionally used for research and development because of the risk to the contractor to perform. [Ref. 21] The CPFF contract places the financial risk on the buyer to pay the contractor for best efforts. The omnibus contract has a certain amount of risk associated with it because the best efforts of the contractor may not meet the performance requirements of the omnibus contract. [Ref. 18] The multi-faceted omnibus contract presents risk and uncertainty in the ability of the contractor to meet the customer requirements. The Navy and the FMS customer must also take responsibility to communicate the needs of the FMS customer and to develop a partnering environment with the contractor. The CPFF contract guarantees the fee to the contractor, but the partnering is needed to minimize cost. Costs have to be emphasized in this contractual arrangement.

A strength of the CPFF type contract lies in the risk shared between the Government and the contractor. The omnibus contract is a complex requirement that requires integration between customer, contractor and Government. The integration is needed to overcome the complex technical requirements of the omnibus contract. Though the CPFF contract rewards the contractor for inefficiency, the fixed fee is capped

at amount instead of being a percentage of cost or an award that increases the contractor's fee for increased cost.

The weakness of the CPFF contract is evident when the Government assumes all the financial risk. [Ref. 18] All allowable costs assumed by the contractor will be reimbursed by the Government. The CPFF contract does not offer incentives to the contractor to reduce or minimize cost. Although the CPFF contract for the omnibus contract may have cost objectives built into the contract, these objectives do not have a relationship to the fixed fee that the contractor is guaranteed. The CPFF contract does not foster the partnership required by the contractor, customer and Government in the omnibus arrangement. All parties in the omnibus contract must have an incentive to minimize the cost. The omnibus contract must have interdependency to be effective, and with no incentive to minimize cost in the contractual arrangement, the relationship between parties is extremely limited. [Interview 12, 13]

The omnibus arrangement does have challenges and uncertainties. These uncertainties must be identified with specifics in the statement of work and be determined by the contractor after award. Specific targets and objectives must be developed to eliminate these uncertainties. The CPFF contract does not provide an incentive for the contractor to eliminate these uncertainties or improve on the current FMS logistics system. The CPFF contract presents a clear disadvantage to the buyer, and increases the potential of uncontrollable costs.

F. CONTRACT MANAGEMENT

The omnibus contract requires contract management that is flexible and focused on the cost objectives of the contract. The omnibus contract requires more performance specifications in order to give the contractor flexibility, but the effects of these specifications are difficult to measure. [Ref. 22] The omnibus contract must be managed for the long-run quality of the omnibus service. Measurements of the contractor's quality/cost performance must be developed and exercised with appropriate controls.

These measurements must include product testing, FMS proposal analysis, and defect detection systems, defect prevention systems and quality critiques. [Ref. 21]

1. Product Testing

Product testing will be used to determine if the contractor's quality level meets the needs of the FMS customer. Product testing will also include the efforts the contractor places on comparing quality levels of several different suppliers to insure competition. Product testing must be conducted to reach the life cycle cost objectives of the omnibus contract. Product testing depends heavily on the purchasing department and other departments to seek out new suppliers and test products that potentially reduce cost to the FMS customer. [Ref. 21]

2. Proposal Analysis

Proposal analysis of the ILS plan that the contractor potentially wants to develop for the FMS customer must be conducted. Contract management must be able to assess the ability of the ILS plan to meet the requirements of the FMS customer. The ILS plan must be reviewed to detect potential misinterpretations or areas not clearly addressed in the plan. The ILS plan must explicitly state how the contractor plans to reach the specified quality level with consistency. [Ref. 19]

3. Defect Detection and Prevention

Defect detection and defect prevention systems should be used to control quality and prevent process problems before they occur. These systems must be used to create consistency in the quality of service provided to the FMS customer. [Ref. 21]

4. Quality Critiques

Quality critiques should be used to reform policy that has not contributed to the quality of service to the FMS customer or has hindered improvement to the FMS logistical system. Lessons learned need to be evaluated for potential changes that will help the weapon system's life cycle cost. Critiques provide as a continuous process for

improvement and develop the partnering between the contractor, customer and Government. [Ref. 21]

5. Contract Management Strengths

The potential strength of contract management rest in the ability of the contractor, customer and Government to come together and develop a partnership to meet the objectives of the omnibus contract. If contract management develops into a policing effort instead of a validation of quality then the partnership failed and efficiency will never be reached. An adversarial relationship will not breed efficiency or quality of service. ILS contract management will contain numerous unexpected activities and the abilities of all stakeholders to tackle these issues with a unified agenda will benefit the customer and give credibility to omnibus contracting.

6. Contract Management Weaknesses

The weakness of contract management is that the omnibus contract will require a vast array of management efforts. The omnibus contract will require procurement, configuration, financial, logistics, maintenance, training and operation management efforts. The areas will have to be evaluated individually as well as integrated with all other areas. The potential for successfully managing and evaluating all of these areas will challenge the Government and will require tremendous efforts from all parties.

The omnibus contract must be managed as a logistical system with multiple entities subdivided into determiners, components or integrators. [Ref. 14] Determiners are the elements outside the omnibus contract that must be accepted or dealt with in order to operate the system. The determiners control the accomplishments of the contract. These determiners for example, would include Naval Supply Systems Command (NAVSUP) who own the inventory, NAVAIR who is responsible for configuration management and sale of the SH2 helicopter, the FMS customer, NAVILCO as contract administrator, and the contractor. Each determiner has a vested interest in the contract and must be managed so as not to inhibit the progress of the omnibus contract.

Components are the physical elements of the contract that are controlled by the contractor. [Ref. 23] The components include the people, machines and elements that make the actual omnibus contract work on a day-to-day basis. The components must be arranged to improve efficiency and promote integration.

Integrators are the intangible elements which include the processes and techniques used to manage the determiners and components. [Ref. 14] The omnibus contract must develop techniques to manage the integrators. The integrators are traditionally controlled by the contractor, however in an omnibus contract responsibility for the integrators needs to be shared because the ILS system is a changing environment which is interdependent upon the contractor, the customer and the Government. Actions by any party has an effect on the ILS system, therefore shared responsibility will keep the ILS system working smooth. [Ref. 14]

G. SUMMARY

In summary, the strength of the omnibus contract must be its ability to integrate services to meet the customer's requirements. Source selection criteria, specifications, statement of work, contract type and contract management must all contribute to strong integration needed for ILS support. A strong statement of work must lay the foundation for the omnibus contract. Flexibility must be important to the contractor, however controls must be implemented to promote efficiency and minimize cost. Contract type has the potential to be a strength if uncertainties are eliminated to ensure that cost will be reduced. The CPFF contract presents no incentive for the contractor to reduce cost and instill quality. Performance specifications must be used to achieve the desired results and develop a teaming relationship between the customer, the contractor and the Government. The omnibus contract does have the potential to improve the current FMS ILS system. If the contractor is allowed to explore commercial ILS practices, efficiency will be encouraged and continuous improvement promoted. Continuous improvements will not only occur in each individual ILS functional area, but the entire ILS process will be improved as well.

The weakness in the omnibus contract is the Navy's attempt to control the contractor. A traditional supplier/buyer relationship requires the Navy to participate at every level of the contract. This will not accomplish the Navy's downsizing goal because few positions will be eliminated by contracting out FMS ILS. Therefore, partnering should be encouraged to eliminate the need to do continuous monitoring of the contractor. The complexity of the ILS breeds misunderstandings and an inexperienced Navy FMS contractor has the potential to misunderstand the FMS customer's requirements. Although a single contract may promote efficiency because work is performed in a more coherent manner, a single contractor with an incremental approach will not create an environment for innovation. The omnibus contract must create environments that are team-oriented and apply a parallel learning structure that is outside the structured organizational chain and entices learning and improvement. [Ref. 14] The omnibus contract will be weakened if traditional contracting methods are used and a buyer/supplier relationship is cultivated. The omnibus contract as an interdependent environment will not be effective, nor will it survive in a contractor's internal top-down driven organization. The omnibus contract will require a team effort at all levels. The contractor, the customer and the Government must employ a cooperative method, such as partnering or teaming.

The omnibus contract is a new idea and must be tailored to meet the needs of the customer. The purpose of tailoring is to assure that the customer is aware of and fully informed of the items/services/training needed to support the end item/system purchased. It will provide a means to evaluate the total requirements for the end item/system being purchased and will inform the customer of the consequences of not pursuing options. The five functional areas discussed in this chapter will serve as an interface and planning document to ensure a flexible and economical approach to support systems to be implemented for the customer. These ideas and concepts must be used to determine if the omnibus contract meets the needs of the FMS customer.

V. CONCLUSIONS AND RECOMMENDATIONS

A. RESEARCH FINDINGS

The findings of this research are summarized below as they pertain to the specific research questions posed in Chapter I. The primary research question is: What would be the essential features associated with an omnibus contract for integrated logistics support and will this type of contract meet the needs of the FMS customer and the US Navy's goals for out-of-inventory equipment? The primary question is addressed after the secondary questions.

1. What are the needs of the FMS customer and how will the omnibus contract support them in the future?

The needs of the FMS customer are to secure the best possible ILS for weapon systems purchased from the US Navy throughout the life cycle of the equipment. As stated by Major General Lightner in Chapter II, the customer must be satisfied and the three primary goals that the FMS customer is requesting are:

1. Material, services and training be provided in an efficient manner.
2. Proper financial accountability of customer funds.
3. Increased productivity and responsiveness through automation.

The needs of the FMS customer vary from customer to customer, therefore the omnibus contract must have the ability to provide tailored ILS support to meet each FMS customer's needs.

The FMS customer's specific needs can be summarized with conclusions drawn from the eight concerns expressed by the SAFRs from NAVILCO, as follows:

1. The cost of the process to contract FMS integrated logistics support.
2. FMS customers prefer the Navy's ILS system.
3. FMS customers prefer centralized integrated logistics support.
4. The level of participation from other FMS customers in an omnibus contract.

5. The responsibility of configuration management.
6. Lead times for FMS requirements must not be extended.
7. The same priority system for FMS support must be used.
8. The FMS customer must have visibility of spares.

FMS customers understand their dependence on the US Navy for ILS support. The FMS customers' requests are centered on the proper management of ILS and their concerns express these interests. The omnibus contract is a contracting vehicle that provides the FMS customer with centralized ILS with the potential for tailored support to meet the needs of the individual customer. The omnibus contract also has the potential to seek out new techniques and employ these techniques to meet the future requirements of the omnibus contract. The current Navy ILS system has proven to be slow to adapt to changes, thus displaying the inability to field changes quickly to improve weapon systems. The omnibus contract provides a vehicle to maintain the FMS customer's weapon system, and attempts to improve the weapon system through innovation, upgrades, and cost saving techniques.

2. What is an omnibus type contract and how does this type contract benefit the FMS program?

The omnibus contract is an all inclusive contract that uses a total package approach to meet the FMS customer's needs. The services for the omnibus contract will require a commercial contractor to provide design, configuration management, field engineering, maintenance, planning, procurement, inventory support, training, casualty and depot level repair.

The total package approach involves the integration of all ILS required services into one contract. [Ref. 14] The total package approach emphasizes that the integration of services in the omnibus contract is more important than the quality of each individual functional area. The omnibus contract involves massive coordination to have the flexibility to provide tailored services to each individual FMS customer. [Ref. 24] The

omnibus contract provides a single face to the FMS customer with high regard for presenting complete information for well-advised decisions.

The omnibus contract is an excellent opportunity to explore commercial integrated logistics support techniques with emphasis on maintenance and inventory control. The importance of the omnibus contract is that the contract is contingent on the development of the relationship between the contractor, the FMS customer and the US Navy. The US Navy is undecided if configuration management will be transferred to a commercial contractor. The contractor will be responsible for the US Navy inventory and control of transferred obsolete equipment and spare parts. These two items force an interdependence that will require a cooperative relationship versus a traditional buyer/seller relationship. The omnibus contract will also require a dependence between the FMS customer and the contractor, so that requirements are clearly defined and tailored for the needs of the customer.

3. What is obsolete equipment and how does FMS fit into the strategic plan for this equipment?

Obsolete equipment can be defined as equipment that has a useful service life but is scheduled for decommissioning, salvage or an FMS transaction. Obsolete equipment along with all spare parts and maintenance capability is being purged from active military requirements. The sale of this equipment to allied foreign countries is dependent upon the capability to maintain it through the remainder of its service life. The US Navy has committed to its foreign customer that FMS equipment will be supported throughout its service life. To abandon this good faith agreement would weaken security assistance programs. Therefore, the strategic plan of the US Navy is to provide continued support for foreign military sales and assist the defense industrial base in creating a market for ILS support.

Other areas of opportunities that an omnibus contract explores are commercial integrated logistics techniques and inventory control processes. [Ref. 25] If successful, these techniques could prove to be valuable to the Navy's own ILS program. The General Accounting Office has reported that the private sector are using a combination of new

management practices to reduce inventory and storage cost. [Ref. 15] The use of the omnibus contract assists ILS in production quality increases for lower prices, and improved customer service through long-term relationships with contractors and subcontractors. The omnibus contract also increases the opportunity to develop and use commercial distribution networks for world-wide support. [Ref. 15]

The omnibus contract has the opportunity to reduce unnecessary inventory requirements, establish electronic interface between the customer, the contractor and subcontractors and develop commercial maintenance practices and facilities. [Ref. 15]

Inventory management practices require close relationships between suppliers and users, and the omnibus contract embraces these types of relationships. The contractor must be entrusted with inventory control, configuration management and acquisition management to provide comprehensive ILS support. [Ref. 26, 27]

4. What are the strengths and weakness of an omnibus contract and how effective will it be?

The omnibus contract's strengths and weaknesses are directly dependent on the strengths and weaknesses of the relationship between the contractor, the FMS customer and the US Navy. The environment of foreign military sales integrated logistics support has been dependent upon the relationship between the US Navy and the FMS customer. The variable of a commercial contractor poses additional concerns. These concerns are specifically addressed in the five functional areas of contracting researched in Chapter IV. These areas include source selection criteria, statement of work, specifications, contract type and contract management.

Source selection criteria must focus on the strengths of the contractor to integrate technical, personnel qualifications and management planning into quality support for the FMS customer. The source selection plan must ensure the contractor gives complete justification of each selection criteria, but equally important is the process of integration between programs. The technical approach must be sound, however flexibility must be given to the contractor to allow the exploration of new techniques in support of obsolete weapon systems. Personnel must be highly skilled, but must have the unique ability to be

cross-functional in other supporting areas to understand critical life cycle costing objectives. Management must have the ability to not only oversee the functions of the omnibus contract, but to have the insight to tailor support to meet the needs of each unique FMS customer.

The statement of work for the omnibus contract must be innovative to allow a contractor the flexibility needed to meet contract requirements. The statement of work should allow the contractor to explore commercial logistics practices to support the FMS customer. The statement of work must encourage improvement in the FMS ILS system and not simply transfer the current ILS system to a commercial contractor. The omnibus contract must have a statement of work that emphasize the decision making authority of the contractor and the contractor's ability to integrate ILS functional areas to control and improve the ILS process. To accomplish these efforts the statement of work must encourage teaming or partnering between the contractor, the FMS customer, and the US Navy.

The specifications of the omnibus contract are unique because they require a combination of design, performance and functional specifications to meet the needs of the contract. Early supplier involvement is needed to ensure sources are prequalified to meet the needs of obsolete systems. Integrated product development is also recommended to explore the use of teams to identify solutions to specification problems. Specifications should encourage competition and avoid unnecessarily restrictive criteria.

A cost-plus-fixed-fee type contract is the wrong type of contract to motivate the contractor. A CPFF contract does not foster the interdependent relationship needed in the omnibus type contract. The financial risk of the contract is on the buyer and the fixed fee is guaranteed to the contractor. There must be risk sharing in the omnibus contract with award fees given for efficiency. Exploration of other types of contracts, such as cost-plus-award-fee, is needed. The cost-plus-award-fee will allow the Government to maximize the incentive structure and encourage efficiency by the omnibus contractor. The cost-plus-award-fee fits the purpose of the omnibus contract perfectly, providing incentives to reduce cost and promote efficiency for the FMS customer. The cost-plus-

award-fee will provide incentives to the contractor and spread risk between the buyer and seller.

Contract management for the omnibus contract must focus on the process of integrating ILS functional areas. The omnibus contract requires partnering and teaming, and contract management must focus in on promoting this type of relationship. Proposal analysis, quality assurance and product testing must be jointly performed to ensure the needs of the FMS customer are met. The contractor is very reliant on the information controlled by the US Navy. Inventory, configuration management, ILS planning, maintenance and training must be team efforts to ensure quality and proper transition to a commercial logistics system.

The omnibus contract will be as effective as the quality of the relationship between the contractor, the FMS customer, and the US Navy. The omnibus contract must be a cooperative agreement that ensures that the contractor and the US Navy work together to deliver the best product to the customer.

5. What would be the essential features associated with an omnibus contract for integrated logistics support and will this type of contract meet the needs of the FMS customer and the US Navy's goal for out of inventory equipment?

The essential features of the omnibus contract are those features discussed in the strengths and weaknesses in Chapter IV. This type of contractual arrangement has the potential to satisfy both the FMS customer and the US Navy, in addition to making great strides in revolutionizing ILS management and support. A challenging effort has to be made to eliminate the uncertainties and create an opportunity for a commercial contractor to excel in this endeavor.

B. RECOMMENDATIONS

The researcher recommends these five ideas for NAVAIR to explore in omnibus contracting:

1. Partnering or teaming relationship between the contractor, the customer and the US Navy.
2. Use the omnibus concept to develop commercial logistical sources.

3. Explore the use of Early Supplier involvement.
4. Replace the cost-plus-fixed-fee contract with an incentive type contract.
5. Explore the use of integrated product development.

To be successful, the omnibus contract requires a teaming or partnering relationship between contractor and customer. There are too many uncertainties in development of foreign military sales integrated logistics support for a contractor to assume all the responsibility for its success or failure.

The omnibus concept needs to be explored because of the potential it has to improve integrated logistics support at minimal cost to the US Government. The omnibus contract also develops the potential for restoring weapon systems that have been placed in reserve status. This develops contingency contracting ideas and keeps commercial capabilities warm for possible future support.

Early supplier involvement will reduce the number of uncertainties that encourage a CPFF type contract. Risk to the contractor must be reduced and ESI and IDP are a possible solutions to give the contractor flexibility to provide quality support at reduced cost.

C. AREAS FOR FUTURE RESEARCH

There have been numerous areas of research alluded to throughout this thesis that require additional research. Some of them are summarized below:

1. Follow-up research after award of an omnibus contract.
2. The effectiveness of integrated product development.
3. The effectiveness of a partnering or teaming relationship between a commercial contractor, an FMS customer, and the US Navy.
4. The effectiveness of commercial contracting for integrated logistics support.

APPENDIX. GLOSSARY OF TERMS

Cooperative Logistics Supply Support	Provides repair part support in which FMS customers purchase equity in the US Weapon System inventory.
Configuration Management	The process that identifies functional and physical characteristics of an item during its life cycle, controls changes to those characteristics, provides information on status of change actions and audits the conformance of items to the imposed system.
Design Specification	Describes a requirement with physical specifications, engineering drawings, tolerances, dimensions, and materials.
FAST LINE	FMS program which has commercialized the procurement for foreign military sales of items/services under \$25,000.
Foreign Military Sales	The developing, producing and supplying military equipment and support services to friendly foreign governments, for loan, sale or credit.
Foreign Military Sales Cases	United States Government to foreign government sales for cash or approved credit. All FMS are title cases. A specific sale of a weapon system, may be composed of several cases making a totality of the system (i.e., hardware, spares training, manuals, follow-on logistics support).
Functional Specification	Describes the function to be performed and how the item fits into a larger system with the use of design objectives.
Integrated Logistics Support	Disciplined, unified, interactive approach to management and technical activities necessary to integrate support considerations into system equipment.
Integrated Product Development	The use of multifunctional teams to develop tailored specifications.
Life Cycle Support	The demonstration of whether a weapon system meets affordability goals, can be procured, operated and supported efficiently and effectively for programmed and budget resources.
Logistics Process Improvement Team	Team chartered by Naval Air Systems Command and Naval Supply Systems Command to review FMS logistics issues.

Logistics Steering Committee	Committee responsible to the Logistics Process Improvement Team for exploring omnibus contract initiative.
Obsolete Equipment	Military equipment scheduled for decommissioning, disposal or potential FMS transactions.
Omnibus Contract	An all inclusive type contract for the Integrated Logistics Support of Foreign Military Sales of obsolete military equipment.
Performance Specifications	Describes what the item, or what the item is required to do, in precise detail.
Reports of Discrepancy	Reports filed by customers for payment or replacement of repair parts with discrepancies of condition, price, quantity, or type.
Security Assistance Foreign Representatives	Monitor their country's FMS programs and immediate customer access to military representatives.
Source Selection Criteria	Criteria used to select the most capable source for contract award.
Statement of Work (SOW)	Provides a basis for the successful performance of the contract the statement of work specifies terms to meet mission performance, operational effectiveness and operational suitability.
Tailoring	The ability to arrange ILS function to meet the need of the FMS customer.
Total Package Approach	Approach to ensure that FMS customers are advised of afforded opportunity. The customer is advised to consider all support items, training and services required to sustain a system in operational conditions.

LIST OF REFERENCES

1. Naval Air Logistics Process Improvement Team, Strategic Plan, October 1993.
2. Naval International Logistics Control Office, "Overview Brief", May 1994.
3. Bajusz, William D. and Louscher, David J., "Arms Sales and the US Economy", Westview Special Studies, 1988.
4. Hagelin, Bjorn, "Neutrality and Foreign Military Sales", Westview Press, 1990.
5. Hartang, William D., "Arms Sales Win Votes and Little Else", New York Times, October 25, 1992.
6. Sorenson, Eric, "Cooperative Supply Support for the 90's," Naval Supply Corps Newsletter, Nov/Dec 1992.
7. Integrated Logistics Support Guide, Defense Systems Management College, May 1986.
8. Cullin, William H., "How to Conduct Foreign Military," Bureau of National Affairs, 1984.
9. Viscovich, Paul W., "The Economic Benefits of FMS Programs Department to the US Department of Defense," Thesis: Naval Postgraduate School, June 1987.
10. Presolicitation, Draft Request for Proposal, Naval Regional Contracting Center, Detachment Philadelphia, July 1984.
11. Section 800 Report Summary DOD Advisory Panel on Streamlining and Codifying Acquisition Laws, National Contract Management Association, March 1993.
12. Psihas, George P., "Foreign Military Sales System Needs Reform," National Defense, July/August 1993.
13. Lightner, Thomas G. "Improving Customer Satisfaction", Defense International Security Assistance Manual, June 1992.
14. Holland, John G. and Griswold, James W., "A Concept for the Total Package Approach to FMS," Logistics Studies Office, US Army Logistics Management Center, 1987.
15. General Accounting Office, "Commercial Practices: DOD Could Save Millions by Reducing Maintenance and Repair Inventories," June 1993.

16. Nash, Ralph C. and Cibinic, John, "Competitive Negotiation: The Source Selection Process", 1993.
17. Henderson, Joe C., "Tools and Techniques to Support Accelerated Aircraft Delivery for Foreign Military Sales", Air War College, 1986.
18. Sherman, Stanley N., "Government Procurement Management", Germantown, Maryland: Woodcrafters Publications, 1991.
19. McChesney, Jack L., "The Evolution of Foreign Military Sales Program and Its Impact on Defense Procurement Policies and Procedures", Dissertation, George Washington University, May 1976.
20. Military Handbook, Preparation of Statement of Work, Department of Defense, 1983.
21. Dobler, Donald W., Burt, David N., and Lee, Lamar, "Purchasing and Materials Management", McGraw Hill, 1990.
22. Bently, Alan K., "Evaluating the Benefits and Costs of Foreign Military Sales", Center for Professional Development, Maxwell Air Force Base, 1988.
23. Putney, Robert F., "Program Management: The System Program Office and Foreign Military Sales," Air War College, Maxwell Air Force Base, 1985.
24. Information and Guidance on Military Assistance Grant Aid and Foreign Military Sales, Evaluation Division, Department of Defense, Twelfth Edition, 1980.
25. Starr, Barbara, "US Arms Control Options Reviewed", *Jane's Defence Weekly*, 9 April, 1994.
26. "Contingency Contracting", Army Federal Acquisition Regulation Supplement Manual No. 2, December, 1993.
27. General Accounting Office, "Security Assistance: Need for Improved Reporting on Excess Defense Article Transfers", January, 1994.
28. General Accounting Office, "1994 DOD Budget Potential Reductions to the Operation and Maintenance Programs", September, 1993.

LIST OF INTERVIEWS

1. Lou Fousco: FMS Logistics Naval Air Systems Command: May 1994.
2. CDR Randy Worley: Executive Officer. Naval International Logistics Control Office: May 1994.
3. Capt. Samuel McGavran: Commanding Officer. Naval International Logistics Control Officer: May 1994.
4. Security Assistance Foreign Representations. Naval International Logistics Control Office: May 1994.
5. CDR Tony Prince: FMS Logistics, Aviation Supply Office: May 1994.
6. CDR G. Roman: Security Assistance Foreign Representatives, Naval International Logistics Control Office: May 1994.
7. Capt. Steven H. House: Information Spectrum: May 1994.
8. Capt. John Moni: Foreign Military Sales Naval Air Logistics Command: May 1994.
9. Robert Morrison: Foreign Military Sales Naval Supply System Command: May 1994.
10. Capt. John Davies: Foreign Military Sales Naval Supply System Command: May 1994.
11. Donald Temple: Naval International Control Office: May 1994.
12. Barney McDerritt, Naval Regional Contracting Office, Philadelphia Detachment, May, 1994.
13. Brian Excell, Naval Regional Contracting Office, Philadelphia Detachment, May, 1994.

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| 4. Professor David Lamm, Code SM/LT
Systems Management Department
Naval Postgraduate School
Monterey, CA 93943-5000 | 5 |
| 5. Professor Mark Stone, Code SM/ST
Systems Management Department
Naval Postgraduate School
Monterey, CA 93943-5000 | 2 |
| 6. Commander Rebecca Adams, Code SM/AD
Systems Management Department
Naval Postgraduate School
Monterey, CA 93943-5000 | 1 |
| 7. Commander Randy Worley
Executive Officer, US Navy International Logistics Control Office
700 Robins Avenue
Philadelphia, PA 19111-5095 | 2 |
| 8. Mr. Lou Fusco
Naval Air Systems Command AIR104F
1421 Jefferson Davis HWY
Arlington, VA 22243-1030 | 3 |
| 9. Mr. Brian Excell, Code 0213A
Naval Regional Contracting Center
US Naval Base, Bldg. 600-1
Philadelphia, PA 19112 | 2 |

10. Captain Steven House, USN (Ret.)
Information Spectrum, Inc.
One Skyline Tower, Suite 1800
5107 Leesburg Pike
Falls Church, VA 22041

2

10. Lieutenant Leslie Alexander
641 Greenhill Road
Sharon Hill, PA 19079

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